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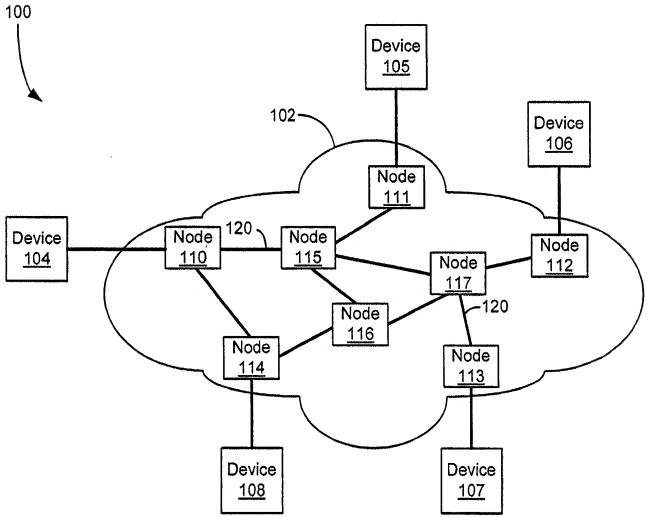

Fig. 1

Title: DUAL USE RATE POLICER AND RE-MARKING LOGIC
Inventor: Name: Andrew V. Hoar, et al
Appl. No. UNASSIGNED
Docket No.: CRESC-003XX

20070"861502T

Fig. 2

20070-851501

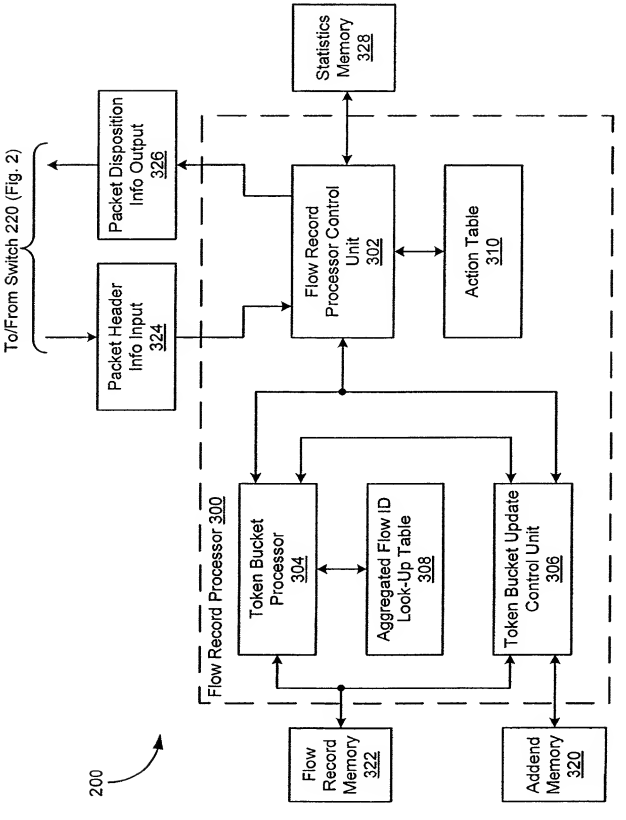

Fig. 3

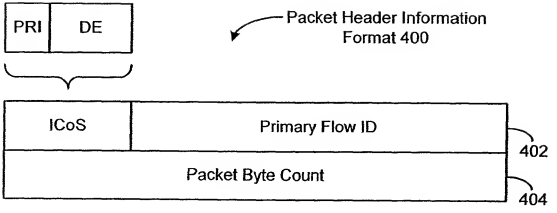
PRI
DE
Packet Header Information
Format 400
ICoS
Primary Flow ID
402
Packet Byte Count
404

Fig. 4

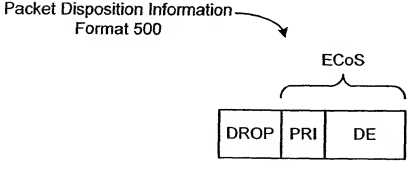
Packet Disposition Information
Format 500
ECoS
DROP
PRI
DE

Fig. 5

10051198-011802

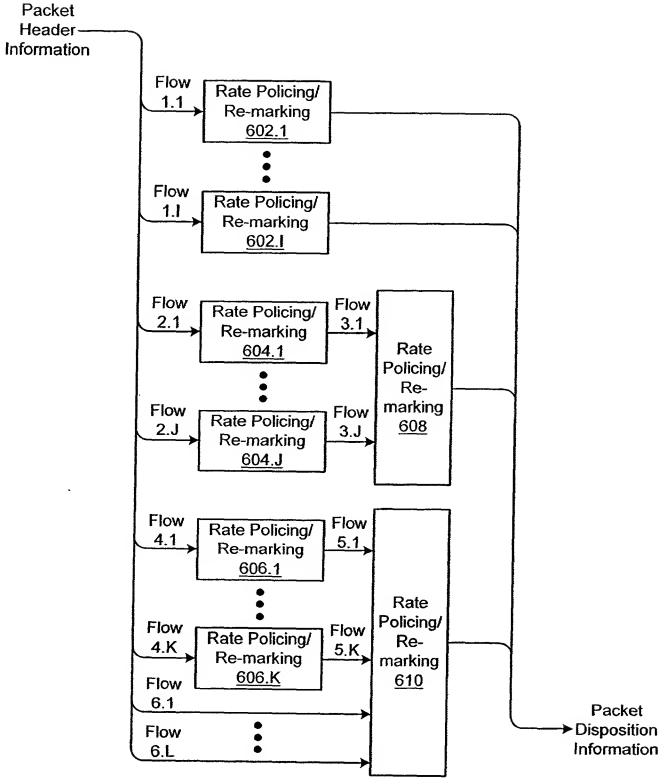

Fig. 6

10051988.010802

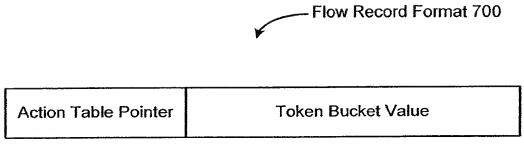

Fig. 7

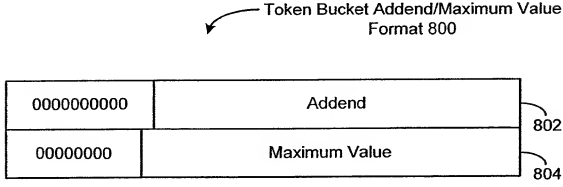

Fig. 8

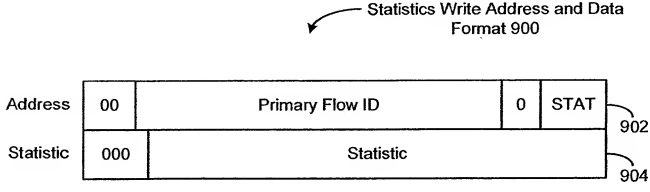

Fig. 9

10051198 - 041602

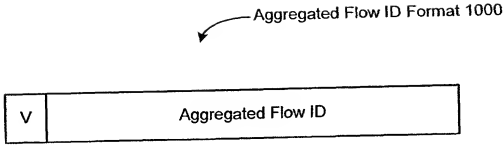

Fig. 10

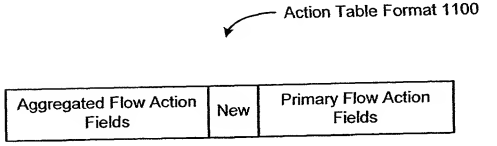

Fig. 11

10051198-011802

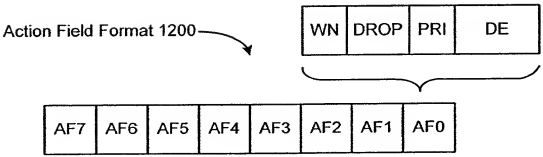

Fig. 12

```
Label: GetNextPacket        // From Packet Header Input
B = PacketByteCount
CCOS = ClassofServiceofPacket
NCCOS = NewClassofService
NCCOS = CCOS

// Use PrimaryFlowID to look-up primary token bucket flow record and
// AggregatedFlowID
PTB = TokenBucket(PrimaryFlowID)
ATB = TokenBucket(AggregatedFlowID)
ATP = ActionTablePointer(PrimaryFlowID)
V = ValidBit(PrimaryFlowID)
AFID = AggregatedFlowID(PrimaryFlowID)

// Use the ATP to get the current action table entry
AT1 = ActionTableLow(ATP) // Primary Action Table Entry
UseNewCos = ActionTableNew(ATP) // Action Table New Bit
AT2 = ActionTableHigh(ATP) // Aggregated Action Table Entry

// Perform the primary token bucket test
If PTB - B < 0;
        If Drop(AT1, CCOS) = True;
                Drop the packet;
                go to GetNextPacket;
        else
                NCCOS = NewCCOS(AT1, CCOS);
                If WholeNumber(AT1, CCOS) = False;
                        PTB = PTB - B;
else
        PTB = PTB - B;
```

10051152-014302

Fig. 13a

10051152 - 011802

```
// Check the valid bit of the AggregatedFlowID
If V = False;
        Write NCCOS into egressPacketHeader;
        go to GetNextPacket;
else    // Use AggregatedFlowID to look-up aggregated token bucket
        // flow record
        If UseNewCCOS = True;
                CCOS = NCCOS;
        // Perform the aggregated token bucket test
        If ATB - B <0;
                If Drop(AT2, CCOS) = True;
                        Drop the packet;
                        go to GetNextPacket;
                else
                        NCCOS = NewCCOS(AT2, CCOS)
                        If WholeNumber(AT2, CCOS) = False;
                                ATB = ATB - B;
        else
                ATB = ATB - B;
        Write NCCOS into egressPacketHeader;
        go to GetNextPacket;
```

Fig. 13b